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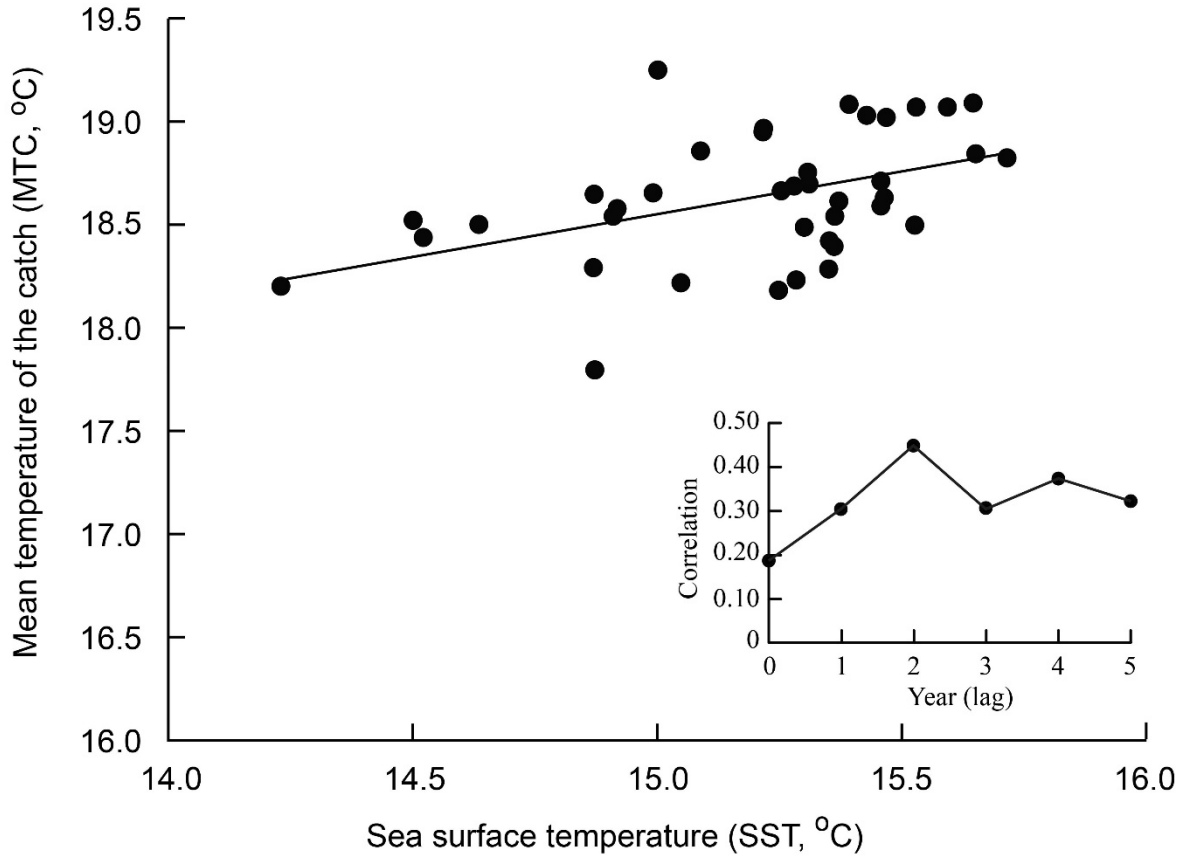
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Supplementary Material

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**Fig. 3:** Correlation ( $r = 0.45$ ;  $p < 0.01$ ) between the mean of SST on 3 points of the Turkish EEZ in the Black Sea and the Mean Temperature of the Catch (MTC) in that same EEZ, lagged 2 years. The insert shows the correlations at lags 0 to 5 years; the regression equation was  $MTC = 12 + 0.41(SST, \text{ in } ^\circ\text{Celsius})$  and a lag of 2 years were used to generate the continuous, but fluctuating line in Figure 2D.

**Table 1a.** List of the fishes includes in the present study and their corresponding trophic level (TL; from FishBase) and temperature preference (TP; from Cheung *et al.*, 2013); n: number of TL estimates available from FishBase. SE: standard error of median TL. When n was  $< 3$ , the average TL was used, and standard deviations (SD) are given. Regions: EM = Eastern Mediterranean; BS = Black Sea.

| Taxa                      | TL  | $\pm$ SE | $\pm$ SD | n | TP | Region |
|---------------------------|-----|----------|----------|---|----|--------|
| <i>Alosa fallax</i>       | 3.6 | -        | -        | 1 | 15 | EM, BS |
| <i>Argyrosomus regius</i> | 4.3 | 0.75     | -        | 1 | 19 | EM, BS |
| <i>Atherinidae</i>        | 3.2 | 0.20     | -        | 6 | 15 | EM, BS |
| <i>Auxis</i> spp.         | 4.3 | 0.10     | -        | 4 | 27 | EM, BS |
| <i>Belone belone</i>      | 4.2 | 0.10     | -        | 3 | 15 | EM, BS |
| <i>Boops boops</i>        | 2.9 | -        | 0.5      | 2 | 20 | EM, BS |

|                                   |     |      |     |    |    |        |
|-----------------------------------|-----|------|-----|----|----|--------|
| <i>Chelidonichthys lucerna</i>    | 3.6 | 0.10 | -   | 3  | 15 | EM, BS |
| <i>Conger conger</i>              | 4.3 | 0.10 | -   | 3  | 16 | EM, BS |
| <i>Dentex dentex</i>              | 4.5 | -    | -   | 2  | 19 | EM, BS |
| <i>Dentex gibbosus</i>            | 4.1 | -    | -   | 1  | 21 | EM     |
| <i>Dentex macrophthalmus</i>      | 3.4 | 0.20 | -   | 3  | 23 | EM     |
| <i>Dentex maroccanus</i>          | 3.9 | -    | -   | 1  | 19 | EM     |
| <i>Diplodus annularis</i>         | 3.2 | 0.10 | -   | 3  | 13 | EM     |
| <i>Diplodus puntazzo</i>          | 3.0 | -    | -   | 1  | 23 | EM     |
| <i>Diplodus sargus</i>            | 3.0 | 0.20 | -   | 4  | 22 | EM, BS |
| <i>Diplodus vulgaris</i>          | 3.2 | 0.20 | -   | 4  | 21 | EM, BS |
| <i>Engraulis encrasicolus</i>     | 3.4 | 0.30 | -   | 3  | 19 | EM, BS |
| <i>Epinephelus aeneus</i>         | 3.8 | -    | -   | 1  | 27 | EM     |
| <i>Epinephelus caninus</i>        | 4.1 | -    | -   | 1  | 26 | EM     |
| <i>Epinephelus costae</i>         | 3.9 | -    | -   | 1  | 26 | EM     |
| <i>Epinephelus marginatus</i>     | 3.9 | 0.12 | -   | 3  | 25 | EM     |
| <i>Euthynnus alletteratus</i>     | 4.5 | -    | -   | 1  | 23 | EM,BS  |
| <i>Gaidropsarus mediterraneus</i> | 3.6 | 0.03 | -   | 4  | 16 | EM,BS  |
| <i>Gobius niger</i>               | 3.3 | 0.06 | -   | 6  | 12 | EM,BS  |
| <i>Lepidorhombus spp</i>          | 4.0 | 0.10 | -   | 6  | 15 | EM     |
| <i>Lichia amia</i>                | 4.5 | -    | -   | 1  | 26 | EM, BS |
| <i>Lithognathus</i>               | 3.4 | -    | 0.1 | 2  | 24 | EM, BS |
| <i>Lophius piscatorius</i>        | 4.5 | 0.04 | -   | 5  | 14 | EM, BS |
| <i>Merlangius merlangus</i>       | 4.4 | -    | 0.1 | 2  | 11 | EM, BS |
| <i>Merluccius merluccius</i>      | 4.3 | 0.13 | -   | 4  | 18 | EM, BS |
| <i>Micromesistius poutassou</i>   | 4.0 | 0.10 | -   | 5  | 15 | EM     |
| Mugilidae (EM) <sup>1</sup>       | 2.5 | 0.08 | -   | 10 | 15 | EM     |
| Mugilidae (BS) <sup>2</sup>       | 2.4 | 0.08 | -   | 11 | 16 | BS     |
| <i>Mullus barbatus</i>            | 3.2 | 0.06 | -   | 14 | 17 | EM, BS |
| <i>Mullus surmuletus</i>          | 3.4 | 0.03 | -   | 12 | 19 | EM, BS |
| <i>Oblada melanura</i>            | 3.0 | -    | -   | 1  | 24 | EM, BS |
| <i>Pagellus erythrinus</i>        | 3.4 | 0.05 | -   | 16 | 18 | EM, BS |
| <i>Pagrus caeruleostictus</i>     | 3.8 | -    | -   | 1  | 24 | EM     |
| <i>Pagrus pagrus</i>              | 3.9 | 0.06 | -   | 7  | 25 | EM     |
| <i>Peristedion cataphractum</i>   | 3.6 | -    | -   |    | 24 | EM     |
| <i>Phycis blennoides</i>          | 3.6 | -    | 0.1 | 2  | 16 | EM, BS |
| <i>Phycis phycis</i>              | 4.2 | 0.06 | -   | 5  | 20 | EM     |
| <i>Pomatomus saltatrix</i>        | 4.5 | -    | -   | 1  | 27 | EM, BS |
| <i>Raja clavata</i>               | 4.3 | -    | -   | 2  | 17 | EM, BS |
| <i>Sarda sarda</i>                | 4.5 | -    | -   | 1  | 23 | EM, BS |
| <i>Sardina pilchardus</i>         | 3.1 | 0.03 | -   | 3  | 16 | EM, BS |
| <i>Sarpa salpa</i>                | 2.3 | 0.17 | -   | 4  | 25 | EM, BS |
| <i>Sciaena umbra</i>              | 3.8 | -    | -   | 1  | 19 | EM, BS |
| <i>Scomber colias</i>             | 3.6 | 0.16 | -   | 6  | 12 | EM, BS |
| <i>Scomber scombrus</i>           | 3.8 | -    | 0.1 | 2  | 12 | EM, BS |
| <i>Scomberesox saurus</i>         | 3.6 | -    | -   | 1  | 20 | EM     |
| <i>Scomberomorus commersoni</i>   | 4.5 | -    | -   | 1  | 28 | EM     |
| <i>Scophthalmus spp</i>           | 3.9 | -    | 0.2 | 2  | 11 | BS     |

|  |     |      |      |    |    |        |
|--|-----|------|------|----|----|--------|
| <i>Scorpaena porcus</i>                | 3.9 | 0.08 | -    | 9  | 18 | EM, BS |
| <i>Scorpaena scrofa</i>                | 4.3 | 0.03 | -    | 4  | 25 | EM     |
| <i>Seriola dumerili</i>                | 4.3 | 0.15 | -    | 9  | 27 | EM     |
| <i>Serranus cabrilla</i>               | 4.3 | 0.19 | -    | 5  | 23 | EM     |
| <i>Serranus scriba</i>                 | 3.8 | 0.03 | -    | 4  | 23 | EM, BS |
| Soleidae & Pleuronectidae <sup>3</sup> | 3.2 | 0.04 | -    | 11 | 14 | BS     |
| <i>Sphyaena</i> spp                    | 4.2 | -    | 0.02 | 2  | 27 | EM, BS |
| <i>Spicara</i> spp                     | 3.3 | 0.06 | -    | 5  | 16 | EM, BS |
| <i>Spondyliosoma cantharus</i>         | 3.3 | -    | -    | 1  | 19 | EM, BS |
| <i>Squalus acanthias</i>               | 4.5 | -    | -    | 1  | 16 | EM, BS |
| <i>Squatina</i> spp                    | 4.1 | 0.03 | -    | 3  | 15 | EM, BS |
| Synodontidae <sup>4</sup>              | 4.2 | 0.20 | -    | 3  | 27 | EM     |
| <i>Thunnus alalunga</i>                | 4.3 | -    | -    | 1  | 27 | EM     |
| <i>Thunnus thynnus</i>                 | 4.4 | -    | -    | 1  | 24 | EM     |
| <i>Trachurus mediterraneus</i>         | 3.6 | 0.09 | -    | 5  | 19 | EM, BS |
| <i>Trachurus trachurus</i>             | 3.7 | 0.10 | -    | 4  | 18 | EM, BS |
| <i>Trigla lyra</i>                     | 3.5 | 0.07 | -    | 4  | 24 | EM, BS |
| <i>Umbrina cirrosa</i>                 | 3.5 | -    | -    | 1  | 15 | EM, BS |
| <i>Xiphias gladius</i>                 | 4.5 | -    | -    | 2  | 26 | EM, BS |
| <i>Zeus faber</i>                      | 4.5 | -    | -    | 1  | 17 | EM, BS |

1) Mugilidae (EM): *Mugil cephalus*, *Chelon labrosus*, *L. aurata*, *L. saliens*;

2) Mugilidae (BS): *Mugil cephalus*, *Chelon labrosus*, *Liza aurata*, *L. saliens* *L. haematocheli*;

3) Soleidae & Pleuronectidae: *Solea solea*, *Platichthys flesus*;

4) Synodontidae: *Synodus saurus*, *Saurida undosquamis*.

**Table 1b.** List of the invertebrates included in the present study, their trophic level (TL; from SeaLifeBase) and temperature preference (TP; from Cheung *et al.*, 2013) by region (EM = Eastern Mediterranean; BS = Black Sea).

| Species                          | TL  | TP | Region |
|----------------------------------|-----|----|--------|
| <i>Callinectes sapidus</i>       | 3.5 | 25 | EM     |
| <i>Cancer pagurus</i>            | 2.6 | 14 | EM, BS |
| <i>Chamelea gallina</i>          | 2.1 | 14 | BS     |
| <i>Homarus gammarus</i>          | 2.6 | 14 | EM     |
| <i>Loligo vulgaris</i>           | 4.1 | 18 | EM     |
| <i>Melicertus kerathurus</i>     | 2.0 | 27 | EM     |
| <i>Metapenaeus monoceros</i>     | 2.0 | 27 | EM     |
| <i>Mytilus galloprovincialis</i> | 2.5 | 17 | BS     |
| <i>Nephrops norvegicus</i>       | 2.2 | 17 | EM     |
| <i>Parapenaeus longirostris</i>  | 2.7 | 25 | EM     |
| <i>Penaeus monodon</i>           | 2.7 | 26 | EM     |
| <i>Penaeus semisulcatus</i>      | 2.7 | 27 | EM     |
| <i>Portunus pelagicus</i>        | 2.0 | 27 | EM     |
| <i>Sepia officinalis</i>         | 3.6 | 19 | EM     |
| <i>Squilla mantis</i>            | 2.7 | 22 | EM     |